

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as shown:

Please amend paragraph [0019] as follows:

[0019] In a preferred embodiment, the pharmaceutical composition of the present invention comprises erythropoietin proteins with an amino acid sequence which includes at least one additional site for glycosylation such as, but not limited to, erythropoietins comprising the sequence of human erythropoietin modified by a modification selected from the following:

Asn³⁰ Thr³²;

Asn⁵¹ Thr⁵³,

Asn⁵⁷ Thr⁵⁹;

Asn⁶⁹;

Asn⁶⁹ Thr⁷¹;

Ser⁶⁸ Asn⁶⁹ Thr⁷¹;

Val⁸⁷ Asn⁸⁸ Thr⁹⁰;

Ser⁸⁷ Asn⁸⁸ Thr⁹⁰;

Ser⁸⁷ Asn⁸⁸ Gly⁸⁹ Thr⁹⁰ (SEQ ID NO: 2);

Ser⁸⁷ Asn⁸⁸ Thr⁹⁰ Thr⁹² (SEQ ID NO: 3);

Ser⁸⁷ Asn⁸⁸ Thr⁹⁰ Ala¹⁶² (SEQ ID NO: 4);

Asn⁶⁹ Thr⁷¹ Ser⁸⁷ Asn⁸⁸ Thr⁹⁰ (SEQ ID NO: 5);

Asn³⁰ Thr³² Val⁸⁷ Asn⁸⁸ Thr⁹⁰ (SEQ ID NO: 6);

Asn⁸⁹ Ile⁹⁰ Thr⁹¹;

Ser⁸⁷ Asn⁸⁹ Ile⁹⁰ Thr⁹¹ (SEQ ID NO: 7);

Asn¹³⁶ Thr¹³⁸;

Asn¹³⁸ Thr¹⁴⁰;

Thr¹²⁵; and

Pro¹²⁴ Thr¹²⁵.

Please amend paragraph [0021] as follows:

[0021] The erythropoietin protein may also be an analog having at least one additional amino acid at the carboxy terminal end of the glycoprotein, wherein the additional amino acid includes at least one glycosylation site. The additional amino acid may comprise a peptide fragment derived from the carboxy terminal end of human chorionic gonadotropin. Preferably, the glycoprotein is an analog selected from the group consisting of (a) human erythropoietin having the amino acid sequence, Ser Ser Ser Ser Lys Ala Pro Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly Pro Ser Asp Thr Pro Ile Leu Pro Gln (SEQ ID NO: 38), extending from the carboxy terminus; (b) the analog in (a) further comprising Ser⁸⁷ Asn⁸⁸ Thr⁹⁰ EPO; and (c) the analog in (a) further comprising Asn³⁰ Thr³² Val⁸⁷ Asn⁸⁸ Thr⁹⁰ (~~SEQ ID NO: 6~~) EPO.

Please amended paragraph [0022] as follows:

[0022] The erythropoietin protein may also be an analog having an amino acid sequence which includes a rearrangement of at least one site for glycosylation. The rearrangement may comprise a deletion of any of the N-linked carbohydrate sites in human erythropoietin and an addition of an N-linked carbohydrate site at position 88 of the amino acid sequence of human erythropoietin. Preferably, the glycoprotein is an analog selected

from the group consisting of Gln²⁴ Ser⁸⁷ Asn⁸⁸ Thr⁹⁰ (~~SEQ ID NO: 9~~) EPO; Gln³⁸ Ser⁸⁷ Asn⁸⁸ Thr⁹⁰ (~~SEQ ID NO: 9~~) EPO; and Gln⁸³ Ser⁸⁷ Asn⁸⁸ Thr⁹⁰ (~~SEQ ID NO: 9~~) EPO. A further analog is darbepoetin alfa. A preferred erythropoietin protein in the use described before is darbepoietin alfa.

Application No. 10/706,701
Amendment dated October 5, 2007
Reply to Office Action of September 13, 2007

Docket No.: NY-ROCHE 203-US

AMENDMENT TO THE SEQUENCE LISTING

Please replace the current paper copy and computer readable form thereof with the attached. No new matter is believed presented.